

### **AMENDMENTS TO THE CLAIMS**

This listing of the claims will replace all prior versions, and listings, of claims in this application.

#### **Listing of Claims**

1.     **(Currently Amended)** A method of monitoring the activity of roscovitine comprising  
      (i) administering roscovitine to a cell, group of cells, an animal model, a mammal or a human, and  
      (ii) ~~detecting the presence~~monitoring the level of phosphorylated erk1 and/or erk2, wherein an increase in the level of phosphorylated erk1 and/or erk2 after administration of roscovitine is indicative of roscovitine activity.
2.     **(Original)** A method according to claim 1, wherein roscovitine is administered to a mammal.
3.     **(Original)** A method according to claim 1 or 2, wherein roscovitine is administered to a human.
4.     **(Original)** A method according to claim 1, wherein the group of cells is a cell culture.
5.     **(Previously Presented)** A method according to claim 4, wherein the cells are selected from HT29, KM12 and HCT116 cells.
6.     **(Previously Presented)** A method according to claim 2, wherein the mammal is a LoVo or KM12 xenograft mouse model.
7.     **(Previously Presented)** A method according to claim 1, wherein the presence of phosphorylated erk1 and/or erk2 is detected in tumor cells or lymphocytes.

8. **(Previously Presented)** A method according to claim 1, wherein erk1 and/or erk2 phosphorylation is monitored at least 24 hours after administration of roscovitine.
9. **(Previously Presented)** A method according to claim 1, wherein erk1 and/or erk2 phosphorylation is monitored at least 48 hours after administration of roscovitine.
10. **(Previously Presented)** A method according to claim 1, wherein the level of phosphorylated erk1 and/or erk2 is greater than that detected prior to administration of roscovitine.
11. **(Previously Presented)** A method according to claim 1, further comprising monitoring the level of phosphorylated retinoblastoma (RB) protein.
12. **(Previously Presented)** A method according to claim 11, wherein the level of phosphorylated retinoblastoma (RB) protein is less than that detected prior to administration of roscovitine.
13. **(Previously Presented)** A method according to claim 12, wherein the level of phosphorylated erk1 and/or erk2 is monitored after 24 hours and the level of phosphorylated retinoblastoma (RB) protein is monitored at least 72 hours after administration of roscovitine.
14. **(Currently Amended)** A method of assessing suitable dose levels of roscovitine comprising monitoring the degree and/or rate of erk1 and/or erk2 phosphorylation after administration of roscovitine to a cell, group of cells, animal model or human, wherein an increase in the degree and/or rate of erk1 and/or erk2 phosphorylation after administration of roscovitine is indicative of roscovitine activity.
15. **(Previously Presented)** A method according to claim 14, further comprising correlating the degree and rate of erk1 and/or erk2 phosphorylation with the known rate of inhibition of either CDK2 or RB phosphorylation by roscovitine at the same dosage, over the same time period.

16. **(Previously Presented)** A method of monitoring the activity of roscovitine in a cassette dosing assay whereby a cocktail of roscovitine and other CDKI's are administered together and roscovitine activity is monitored in accordance with a method of claim 1.

17. **(Currently Amended)** A method of identifying a candidate drug having roscovitine-like activity comprising administering said candidate drug to a cell, group of cells, animal model or human and monitoring the ~~presence or absence~~ level of erk1 and/or erk2 phosphorylation, wherein an increase in erk1 and/or erk2 phosphorylation after administration of the candidate drug is indicative of the candidate drug having roscovitine-like activity.

18. **(Previously Presented)** A method according to claims 1, 14 or 16, wherein roscovitine is R-roscovitine.

19-26. **(Cancelled)**

27. **(Previously Presented)** The method of claims 1, 14, 16 or 17, wherein erk1 and/or erk 2 phosphorylation is monitored using antibodies for erk1 and/or erk2.

28. **(New)** The method of claim 27, further comprising monitoring the level of phosphorylated retinoblastoma (RB) protein using antibodies for RB.